

What is claimed is:

1. A method for treating an ischemic disorder in a subject which comprises administering to the subject a pharmaceutically acceptable form of a Factor IXa compound in a sufficient amount over a sufficient period of time to inhibit coagulation so as to treat the ischemic disorder in the subject. *CMJ*

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10 2. A method for treating an ischemic disorder in a subject which comprises administering to the subject a pharmaceutically acceptable form of a Factor IXa compound and a pharmaceutically acceptable form of an indirect or direct fibrinolytic agent, each in a sufficient amount over a sufficient period of time to inhibit coagulation so as to treat the ischemic disorder in the subject. *77*

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20 3. The method of claims 1 or 2, wherein the Factor IXa compound comprises recombinant inactivated Factor IXa.

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4. The method of claims 1 or 2, wherein the Factor IXa compound is a peptide, a peptidomimetic, a nucleic acid, a small molecule, a mutated peptide or nucleic acid, a mutein, an antibody or fragment thereof.

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5. The method of claims 1 or 2, wherein the Factor IXa compound is a synthetic molecule.

35 6. The method of claims 1 or 2, wherein the pharmaceutically acceptable form comprises a pharmaceutically acceptable carrier selected from an aerosol, intravenous, oral or topical carrier.

7. The method of claims 1 or 2, wherein the ischemic disorder comprises a peripheral vascular disorder, a pulmonary embolus, a venous thrombosis, a myocardial infarction, a transient ischemic attack, unstable

angina, a reversible ischemic neurological deficit, sickle cell anemia or a stroke disorder.

8. The method of claims 1 or 2, wherein the ischemic disorder is iatrogenically induced.

9. The method of claims 1 or 2, wherein the subject is undergoing angioplasty, heart surgery, lung surgery, spinal surgery, brain surgery, vascular surgery, abdominal surgery, or organ transplantation surgery.

10. The method of claim 9, wherein the organ transplantation surgery comprises heart, lung, pancreas or liver transplantation surgery.

15. The method of claims 1 or 2, wherein the period of time comprises from about 5 days before surgery or onset of the disorder to about 5 days after surgery or the onset of the disorder.

20. The method of claims 1 or 2, wherein the period of time comprises from about 1 hour before surgery or the onset of the disorder to about 12 hours after surgery or the onset of the disorder.

25. The method of claims 1 or 2, wherein the period of time comprises from about 12 hours before surgery or the onset of the disorder to about 1 hour after surgery or the onset of the disorder.

30. The method of claims 1 or 2, wherein the period of time comprises from about 1 hour before surgery or the onset of the disorder to about 1 hour after surgery or the onset of the disorder.

35. The method of claims 1 or 2, wherein the subject is a mammal.

16. The method of claim 15, wherein the mammal is a human.

17. The method of claim 1, wherein the amount comprises from about 75  $\mu$ g/kg to about 550  $\mu$ g/kg.

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18. The method of claim 1, wherein the amount comprises 300  $\mu$ g/kg.

10 19. The method of claim 2, wherein the direct fibrinolytic

agent comprises plasmin or viper venom.

15 20. The method of claim 2, wherein the indirect fibrinolytic agent comprises tissue plasminogen activator, urokinase, streptokinase, RETROVASE<sup>®</sup>, or recombinant tissue plasminogen activator.

20 21. A method for identifying a compound that is capable of improving an ischemic disorder in a subject which comprises:

25 a) administering the compound to an animal, which animal is a stroke animal model;

b) measuring stroke outcome in the animal, and

c) comparing the stroke outcome in step (b) with that of the stroke animal model in the absence of the compound so as to identify a compound capable of improving an ischemic disorder in a subject.

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22. The method of claim 21, wherein the compound is a Factor IXa compound.

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23. The method of claim 21, wherein the stroke animal model comprises a murine model of focal cerebral ischemia and reperfusion.

24. The method of claim 21, wherein the stroke outcome is

measured by physical examination, magnetic resonance imaging, laser doppler flowmetry, triphenyl tetrazolium chloride staining, chemical assessment of neurological deficit, computed tomography scan, or cerebral cortical blood flow.

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25. A method for treating a reperfusion injury in a subject which comprises administering to the subject a Factor IXa compound in a sufficient amount over a sufficient period of time to inhibit coagulation so as to treat the reperfusion injury in the subject.

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26. The method of claim 25, wherein the Factor IXa compound comprises recombinant inactivated Factor IXa.

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27. The method of claim 26, wherein the Factor IXa compound is a peptide, a peptidomimetic, a nucleic acid, a small molecule, a mutated peptide or nucleic acid, a mutein, an antibody or fragment thereof.

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28. The method of claim 26, wherein the Factor IXa compound is a synthetic molecule.

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29. A method of inhibiting clot formation in a subject which comprises adding to blood an amount of an inactive recombinant mutein in an amount effective to inhibit clot formation in the subject but which does not significantly interfere with hemostasis when the blood is administered to a patient.

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30. The method of claim 29, wherein the patient has experienced an ischemic event.

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31. An assay to monitor the effect of a Factor IXa compound administered to a subject to treat an ischemic disorder in the subject which comprises:

a) measuring the ischemic disorder in the subject;

b) administering the Factor IXa compound to the subject and measuring the ischemic disorder, and

c) ~~comparing the measurement of the ischemic disorder in step (b) with that measured in step (a) so as to monitor the effect of the Factor IXa compound.~~

32. The assay of claim 31, wherein the ischemic disorder is measured by physical examination, magnetic resonance imaging, laser doppler flowmetry, triphenyl tetrazolium chloride staining, chemical assessment of neurological deficit, computed tomography scan, or cerebral cortical blood flow.

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